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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/701,055

11/04/2003

Andreas Reineke

BE8794US

5538

7590

04/10/2006

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EXAMINER

CHANG, YEAN HSI

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/701,055

Applicant(s)

REINEKE, ANDREAS

Examiner

Yean-Hsi Chang

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/20/06 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (US 6,654,242 B2) in view of Diaz et al. (US 6,219,235 B1), further in view of Lai (US 6,404,630 B1), and Michael (US 6,778,390 B2).

Regarding claims 1, 13 and 19, Ogawa teaches a computer (1, fig. 1) comprising: a case (13) in which at least one cooling device (12) and one electrical component (15) to be cooled are arranged, wherein the case has a plurality of ventilation openings (82), the ventilation opening is arranged on a side (22) of the case opposite to the electrical

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component, the cooling device is arranged between the ventilation opening and the electrical component (shown in fig. 4) so that a substantially rectilinear air flow onto the component is formed inside the case, wherein the ventilation opening is disposed in a region (at 82) of a sidewall (22) of the case and an unobstructed space (between 82 and 12, shown in fig. 4) is defined between the ventilation opening and the cooling device.

Ogawa fails to teach said region of said sidewall of said case being offset, or recessed towards an opposite side (lower side) of the case.

Diaz teaches a ventilation opening (130, fig. 2A) on a region (at 130) on one side (115) of a case (110) of an electronic assembly (100), wherein the region of said side being offset, or recessed towards an opposite side of the case (shown in fig. 2A) for better air flow control.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ventilation opening region on the sidewall the device of Ogawa with the ventilation opening region of a sidewall taught by Diaz for better air flow control.

Regarding claims 3-10, 15, 18 and 20, Ogawa further teaches the cooling device, the component and the region of the case having the ventilation opening being coaxial (shown in fig. 4) (claim 3); wherein the case is rectangular (shown in fig. 1) (claim 4); wherein the component is a central data processing unit (see col. 6, line 1) (claim 5); wherein the cooling device comprises a fan (12) and a heat sink (14) abutting against the central data processing unit (shown in fig. 4) (claims 6-7 and 20); wherein a heat-

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conducting medium is arranged between the heat sink and the central data processing unit (shown in fig. 4, not labeled) (claim 8); a device (11) which is arranged between the fan and the ventilation opening (claim 9); a device (fins of 14, not labeled) which is arranged between the heat sink and the fan (claims 10 and 18); and wherein the case has air outlet openings (83a) (claim 15).

Regarding claims 11-12 and 14, Ogawa in view of Diaz et al. discloses the claimed invention except the device being cylindrical and made of flexible material, and the ventilation openings being circular.

Lai teaches a computer (fig. 3) comprising a cylindrical device (12) made of a flexible material (see col. 2, line 15), being arranged between a fan (30, fig. 1) and a circular ventilation opening (shown in fig. 3, not labeled) arranged on a side (52) of a case (50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Ogawa with the device taught by Lai for entirely covering the fan and preventing air leakage so as to increase the efficiency of air convection.

Regarding claims 16-17, Ogawa in view of Diaz et al. discloses the claimed invention except a filter being arranged along the flow path of the air, and the heat sink being made of metal, especially of aluminum or copper.

Michael teaches a cooling system (fig. 8) for a computer system (800), comprising a filter (at vent 803; see col. 3, lines 18-19) being arranged along the flow

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path of the air (shown in fig. 3) for cleaning inlet air, and a heat sink (123, fig. 1) being made of metal, especially of aluminum or copper (see col. 3, lines 13-15).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Ogawa with the filter and the heat sink taught by Michael for cleaning inlet air, and for efficiently dissipating heat generated by the CPU.

### ***Response to Arguments***

4. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's arguments with respect to claim 19 have been fully considered but they are not persuasive. Applicant argues, "the Diaz reference does not teach, suggest, or show an unobstructed space defined between a ventilation opening and a cooling device as required by claim 19", and "a combination of the Ogawa and Diaz et al. references would not teach, suggest, or show a ventilation opening recessed in a sidewall of one side of a case towards an electrical component on an opposite side of the case". The first feature, an unobstructed space, is taught by Ogawa reference as stated hereinabove in section 3; and the feature "a ventilation opening recessed in a sidewall of one side of a case towards an electrical component on an opposite side of the case" is taught by Diaz reference as also stated hereinabove in section 3.

### ***Correspondence***


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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (571) 272-2038. The examiner can normally be reached on 07:30 - 16:00, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the Art Unit phone number is (571) 272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8558.

Yean-Hsi Chang  
Primary Examiner  
Art Unit: 2835  
April 4, 2006

  
YEAN-HSI CHANG  
PRIMARY EXAMINER